

Composite Process Technology and Innovation at Boeing

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Abstract

Boeing has been researching advanced carbon composites for over three decades but wide-scale production use has been limited by the costs of the raw materials and fabrication processes. More recently, advances in automated processes have allowed a much greater percentage of composites structure on the 787. The major composite processes include automated fiber placement, automated tape lamination, and drape forming. Advances in these areas make large-scale use of composites more affordable, which will increase usage, and in turn further reduce raw material costs. This cycle benefits the cost and performance of future aerospace products and spreads into other industries.